Regional Haze Best Available Retrofit Technology and Reasonable Progress

The following identifies an option for EPA implementation of Best Available Retrofit Technology (BART) based on an approach similar to the Cross State Air Pollution Rule (CSAPR) as well as a possible expanded approach for reasonable progress purposes.

Coal-Fired BART Units

Sulfur Dioxide (SO_2) BART

BART-subject coal-fired electric generating units (EGUs) would comply with mass-based source or system caps that would be equivalent to the SO_2 allocations the units received under the CSAPR, as outlined in Table 1.

- A source cap would apply to all the BART-subject sources located at a given site.
- A system cap would apply to all the BART-subject sources at one or more sites under common ownership and control.
- An intrastate trading option would also allow companies to trade between sites or systems within Texas.

The EPA has already determined that CSAPR is better than BART, and the approach, while not applying to all EGUs that were subject to CSAPR, would apply to the majority of SO_2 emissions from EGUs in Texas (see Table 3 below). Furthermore, approximately 70% of the SO_2 emissions from the BART-subject sources come from sources that the EPA previously determined had significant visibility impacts for purposes of reasonable progress (Coleto Creek, Big Brown, Martin Lake, and Monticello). Therefore, the EPA's CSAPR-better-than-BART determination should satisfy the requirement that BART alternatives show greater reasonable progress under this approach, particularly if this strategy is combined with the reasonable progress option described below.

Table 1: BART-Subject Coal-Fired EGU SO_2 Allocations and 2016 Emissions

Company	Site	Annual Allocation[1] (tons)	2016 Emissions (tons)
AEP	Welsh Power Plant (Units 1 & 2[2])	13,546	6,005
CPS Energy	JT Deely (Units 1 & 2)	12,252	7,625
Dynegy	Coleto Creek (Unit 1)	9,057	8,231
LCRA	Fayette/Sam Seymour (Units 1 & 2)	15,998	877
Luminant	Big Brown (Units 1 & 2)	17,032	42,470
	Martin Lake (Units 1 – 3)	35,840	25,471
	Monticello (Units 1 – 3)	29,609	24,958
	Luminant Subtotal	82,481	92,899
NRG	WA Parish (Units WAP5 & WAP6)	18,480	21,839
Xcel	Harrington (Units 061B & 062B)	10,616	8,869
Total All BART-Subject Units		162,430	146,345

Nitrogen Oxides (NO_X) BART

Texas' participation in the Ozone Season NO_X CSAPR Program satisfies NO_X BART for the BART-subject units.

[1] EPA CSAPR allocations after tolling: https://www.epa.gov/sites/production/files/2016-05/unitlevelallocations_tolled-2.xls. Allocations DO NOT INCLUDE allowances distributed to existing units from the New Unit Set Aside (NUSA) pool after allocation to new units. Including NUSA allowances would increase allocations by approximately 3.5%; however, the amount of NUSA allowances distributed to these units is variable, changing year-to-year. Red indicates the source or system allocation is deficit to the 2016 emissions.

[2] Welsh Unit 2 was BART eligible and would have been subject to BART if the unit had not been retired in April 2016. Welsh Unit 2 is included to allow AEP to take credit for the shutdown.

Particulate Matter (PM) BART

The EPA's interpretation of the July 19, 2006 guidance memorandum regarding BART determinations is not correct and the TCEQ's original SIP submittal screening out PM from all fossil fuel-fired EGUs for BART purposes should be approved by the EPA. The memorandum does not state that pollutant-specific screening for PM is only allowed under BART alternatives; it only provided the situation of a state relying on the Clean Air Interstate Rule as an example where pollutant-specific screening may be appropriate. Regardless, the approach proposed above for SO_2 BART and the Ozone Season NO_X CSAPR Program are BART alternatives. Therefore, the EPA's interpretation of the 2006 memorandum is not applicable under this suggested alternative to source-specific BART. See TCEQ's comments dated May 5, 2017 for additional detail.

Gas-Fired and Gas/Oil-Fired BART Units

While the gas-fired and gas/oil-fired BART-subject EGUs could be incorporated into the above approach for SO_2, the SO_2 allocations and emissions associated with these units are inconsequential compared to the coal-fired units. The fuel restrictions may be a more practical approach for satisfying SO_2 BART on these units. Texas' participation in the Ozone Season NO_X CSAPR Program satisfies NO_X BART for these units.

Combined BART/Reasonable Progress

A limited expansion of the SO_2 approach outlined above for coal-fired BART units may be supportable for reasonable progress purposes. In the EPA's 2016 Regional Haze Reasonable Progress Federal Implementation Plan (FIP), the EPA identified certain coal-fired EGUs as having significant contributions for visibility impacts. Nine of the 15 units subject to the EPA's reasonable progress FIP are BART-subject units. The BART approach above could be modified to include the non-BART units from the reasonable progress FIP. This expanded approach would use source or system caps for the BART-subject EGUs (Table 1) and the non-BART EGUs subject to the EPA's 2016 reasonable progress FIP (Table 2), and would allow companies to trade between source or system caps via an intrastate trading program.

Table 2: Non-BART Coal-Fired EGUs under Reasonable Progress FIP, SO_2 Allocations and 2016 Emissions

Company	Site	Annual Allocation[1] (tons)	2016 Emissions (tons)
Luminant	Sandow (Unit 4)	8,370	12,105
NRG	Limestone (Units 1 & 2)	24,374	20,801
San Miguel Electric Cooperative	San Miguel (Unit 1)	6,271	6,815
Xcel	Tolk Station (Units 171B & 172B)	13,962	14,977
Total All Units		52,977	54,698

Table 3: Combined BART and Reasonable Progress EGUs, SO_2 Allocations and 2016 Emissions

Approach	Annual Allocation[1] (tons)	2016 Emissions (tons)	% of Total Texas EGU Emissions
BART Coal-Fired Units	162,430	146,345	60%
Non-BART Reasonable Progress Units	52,977	54,698	22%
Combined Total	215,407	201,043	82%
Total Texas EGU Emissions		245,737	